

Cancel claim 8 without prejudice..

Cancel claim 9 without prejudice..

Cancel claim 10 without prejudice..

Cancel claim 11 without prejudice..

Cancel claim 12 without prejudice..

13. (Twice Amended) A system [circuit] for processing radio frequency (RF) signals comprising:

an input to said circuit for receiving an RF signal;

a mixer having an input connected to said RF signal input;

5 a first filter having an input connected to an output of said mixer;

a first amplifier having an input connected to an output of said first filter;

a second filter having an input connected to an output of said first amplifier;

and

a second amplifier having an input connected to an output of said second filter,

10 and an output connected to an output of said circuit;

wherein said mixer, said first and second filters and said first and second amplifiers are constructed on a single integrated circuit substrate.

14. The system as claimed in claim 13, wherein said first filter is a low-pass filter.

15. (Amended) The system as claimed in claim 13, wherein said first amplifier means is a variable gain amplifier (VGA).

16. The system as claimed in claim 13, wherein said second filter means is an intermediate frequency, band-pass filter.

17. (Amended) The system as claimed in claim 13, wherein said second amplifier means is a fixed gain amplifier (FGA).

18. (Twice Amended) A method of processing radio frequency (RF) signals, the method comprising the steps of:

receiving an input RF signal;

mixing said input RF signal with an operating frequency signal to generate a

5 first signal;

filtering said first signal to generate a second signal;

amplifying to a fixed level said second signal to generate a third signal;

filtering said third signal to generate a fourth signal; and

amplifying said fourth signal a fixed amount to generate a fifth signal;

10 wherein said mixing, filtering and amplifying steps are performed on a single integrated circuit substrate.

19. A method for processing RF signals as recited in claim 18, wherein said step of filtering said first signal to generate said second signal includes processing said first signal through a low-pass filter; and

5 wherein said step of amplifying said second signal to generate a third signal includes amplifying said second signal by a variable gain amplifier (VGA), the limit of said VGA being the maximum level acceptable by said third signal filtering step without distortion.

20. A method for processing RF signals as recited in claim 19, wherein the step of filtering said third signal to generate a fourth signal includes processing said third signal through an intermediate-frequency, band-pass filter.

21. (Amended) A method of processing RF signals as recited in claim 20, wherein said step of amplifying said fourth signal to generate a fifth signal includes amplifying said fourth signal by a fixed gain amplifier (FGA).

Please add the following new claims:

22. (NEW) The circuit of claim 13 wherein said first amplifier operates to amplify an output signal from said first filter to a maximum level acceptable as an input to said second filter to avoid distortion of said RF signal.

23. (NEW) The circuit of claim 22 wherein said RF signal is a video signal.

24. (NEW) The method of claim 18 wherein said amplifying-to-a-fixed-level step amplifies said second signal to a specific level that is a maximum level acceptable as an input to a filter to avoid distortion of said RF signal.

25. (NEW) The method of claim 24 wherein said RF signal is a video signal.

26. (NEW) A radio frequency (RF) signal processing circuit comprising:
a mixer coupled to an RF signal input;

a variable gain amplifier coupled to said mixer, wherein said variable gain amplifier amplifies IF signals received from said mixer to a particular signal level, said particular signal level corresponding to the maximum signal level that can be accepted by a filter without distorting said RF signal;

said filter coupled to an output of said variable gain amplifier and operable to pass frequencies in a selected IF band, while simultaneously attenuating signals having frequencies outside of said IF band; and

an amplifier coupled to an output of said filter;

wherein said mixer, said filter, and said amplifiers are physically located on a single integrated circuit substrate.